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EXECUTIVE OFFICE OF ENERGY & ENVIRONMENTAL AFFAIRS  
**DEPARTMENT OF ENVIRONMENTAL PROTECTION**  
**NORTHEAST REGIONAL OFFICE**

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CERTIFIED MAIL

Richard A. Nylen, Esq.  
Lynch DeSimone & Nylen, LLP  
12 Post Office Square  
Boston, Massachusetts 02109

April 12, 2007

Re: NEWBURYPORT - Solid Wastes/COR  
Crow Lane Landfill  
Superior Court Civil Action No. 06-0790 C  
Preliminary Injunction  
Paragraph 9 – Notice of Noncompliance  
FMF No. 39545

Dear Attorney Nylen:

The Massachusetts Department of Environmental Protection, Bureau of Waste Prevention, Solid Waste Section (the "MassDEP") has determined as described herein that your client, New Ventures Associates, LLC ("New Ventures"), is not in compliance with the preliminary injunction entered on October 20, 2006 in Suffolk Superior Court, Civil Action No. 06-0790 C, as amended by order of the Court on November 1, 2006 and February 22, 2007 (the "Order").

1. Paragraphs 1 (b) and 1 (d) of the Order require, among other things, that New Ventures operate the enclosed flare and landfill gas (LFG) pre-treatment system at the Crow Lane Landfill (the "Site") in accordance with the performance standards in the LFG protocol attached to the Order as "Appendix A," twenty four (24) hours a day, seven (7) days a week, with demonstrated effectiveness at controlling hydrogen sulfide (H<sub>2</sub>S), sulfur dioxide (SO<sub>2</sub>), and other LFG emissions to meet the requirements of G.L. c. 111, § 150A, and the implementing regulations at 310 C.M.R. 19.000 *et seq.*, and G.L. c. 111, § 142 A-B, and the implementing regulations at 310 C.M.R. 7.00 *et seq.* In order to assure compliance with the Order's operational protocols and performance standards for the enclosed



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flare and LFG pretreatment system, Appendix A of the Order also establishes sampling and testing requirements.

- a. Appendix A, Section D. 2. of the Order specifies that:

The pre-treatment system shall be considered to be in compliance with the performance criteria of Appendix A, Sections D.1.c. and D.1.d. provided that the H<sub>2</sub>S concentration of the landfill gas into the flare does not exceed the minimum destruction efficiency of 95% reduction of H<sub>2</sub>S or the 1.01 lbs/hr H<sub>2</sub>S criteria for any two hours during a twenty-four hour period. In determining compliance with these requirements, any single sample shall be considered to represent 1 hour, unless a minimum of 4 samples are collected over an hourly period and averaged on a time weighted-basis.

- b. Appendix A, Section F. 2.f. of the Order requires that:

New Ventures measure, the flow rate into flare and the H<sub>2</sub>S concentration of the landfill gas at the inlet and outlet of the pre-treatment system a minimum of once every 4 hours each day. If a regenerative system is being used New Ventures shall in addition measure the H<sub>2</sub>S concentration of landfill gas at the inlet and outlet of each pre-treatment vessel when it is started after regeneration or after replacement of spent media with new media and just prior to the shut down of the pre-treatment vessel for regeneration or replacement of the media. In addition, New Ventures must collect one (1) sample of landfill gas per month from the inlet of the landfill gas flare for laboratory analysis of sulfide compounds (sulfides, mercaptans, and thiols) using EPA Method 15 using GC/FPD or equivalent and for volatile organic compounds (VOCs) using EPA Method TO-15 or equivalent shall also be required. For testing purposes, the inlet and outlet sampling ports shall be installed in accordance with 40 CFR Part 60, Appendix A. Once during the evening and once during the day New Ventures shall also measure the pressure drop across the pre-treatment vessels.

- c. Appendix A, Section F. 3.b. of the Order requires that:

After initiating reduced sampling pursuant to the provisions of Appendix A, Section F.3, if any hourly sample exceeds the performance criteria of Appendix A, Sections D.1.c. and d. above, New Ventures shall resume the sampling frequency required by Appendix A, Section F.2.f. Upon operation of the enclosed flare and the final pre-treatment system thereafter for a period of five (5) days in compliance with this Appendix and the Preliminary Injunction New Ventures may resume the reduced twice per day (once per shift) sampling in accordance with Appendix A, Section F.3.

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The following table summarizes the data reported by MassDEP's contractor, Shaw Environmental, Inc. of Salem New Hampshire, and New Ventures on April 3, 2007 for landfill gas samples collected from the inlets of the pre-treatment system and the enclosed flare on April 2<sup>nd</sup> and 3<sup>rd</sup>.

<b>Sampler</b>	<b>Date/Time</b>	<b>Pre-treatment System Inlet [ppb]</b>	<b>Flare Inlet [ppb]</b>	<b>H2S Reduction Measured [%]</b>	<b>H2S Removal Efficiency<sup>1</sup> [%]</b>
Shaw	April 2nd / 5 PM	10,000	1,600	84 %	72 %
New Ventures	April 2nd / 5 PM	18,000	1,500	92 %	85 %
New Ventures	April 3 <sup>rd</sup> /5 AM	17,000	1,500	91 %	82 %

Based on the above noted sampling and data, the LFG pretreatment system was not operating within the 95 percent H2S removal efficiency and reduction levels required by Appendix A, Section D of the Order twice during a twenty-four period. As a result, New Ventures was not operating the pretreatment system in compliance with the performance standards of Appendix A, Section D. In addition, based on the Collection System Monitoring Forms submitted by New Ventures to MassDEP since April 2, 2007, New Ventures has failed, as required by Appendix A Section F.3.b, to resume the collection of the landfill gas samples at a rate of six times per day for five days in accordance with Appendix A Section F.2.f..

In addition, as of the date of this notice, New Ventures has not collected the required February and March 2007 monthly landfill gas samples for laboratory analysis of sulfide compounds and VOCs as required by Appendix A, Section F.2.f. of the Order. New Ventures last collected and submitted the required monthly landfill gas samples for laboratory analysis on January 9, 2007.

2. Paragraph 1(d) of the Order requires New Ventures to install and operate in conjunction with the automated enclosed flare a permanent LFG pre-treatment system consisting of three (3) pre-treatment vessels twenty four (24) hours a day, seven (7) days a week, in accordance with the performance standards in Appendix A of the Order and with demonstrated effectiveness at controlling hydrogen sulfide, sulfur dioxide, and other LFG emissions to meet the requirements of M.G.L. c. 111, § 150A, and the implementing regulations at 310 CMR 19.000 *et seq.*, and M.G.L. c. 111, § 142 A-B, and the implementing regulations at 310 CMR 7.00 *et seq.*
  - a. New Ventures currently utilizes two (2) forty (40) yard containers charged with Sulfur-Treat as pre-treatment vessels at the site. New Ventures modified the containers for use as permanent pre-treatment vessels by, among other things, installing fittings for connection of

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<sup>1</sup> The H2S Removal Efficiency is calculated using the measured H2S concentration from the pre-treatment system adjusted for dilution due to the introduction of ambient air into the pre-treatment system as determined by the relative concentrations of methane, carbon dioxide and oxygen measured in the landfill gas samples from the inlet and outlet [inlet to the flare] of the pre-treatment system. The calculated dilution on April 2, 2007 is approximately 44% based on the data collected by MassDEP's contractor, Shaw Environmental, Inc. on that date.

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the vessels to the landfill gas system; installing access hatch(s) for charging and removing treatment media from the vessels; and sealing the vessels to render them airtight and prevent the infiltration of ambient air into the pre-treatment vessels and the landfill gas flare. The two containers/vessels are connected in series, as well as to the header of the LFG extraction system and enclosed flare, with a temporary flexible 6 inch header. New Ventures maintains a third pre-treatment vessel at the Site that utilizes Sulfa-Bind. This vessel is not connected to the landfill gas extraction system.

During inspections of the Site, MassDEP representatives routinely collect data on the quality/composition of the landfill gas entering the pre-treatment system (influent), between the pre-treatment vessels (mid-point), and after the pre-treatment system at the inlet to the enclosed flare (effluent). This data includes measurement of the concentrations of methane (CH<sub>4</sub>), oxygen (O<sub>2</sub>), and hydrogen sulfide (H<sub>2</sub>S). The data consistently shows decreases in the concentration of CH<sub>4</sub> and CO<sub>2</sub> and increases in the concentration of O<sub>2</sub> from the influent, mid-point, and effluent samples indicative of significant intrusion of ambient air into the pre-treatment system demonstrating that the containers are not airtight. Therefore, the pre-treatment system is not in compliance with this requirement, because the containers as constructed are not airtight and do not constitute permanent vessels.

- b. Paragraph 1(d)(ii) of the Order requires that New Ventures submit to the MassDEP by March 7, 2007 an Interim Operation Plan specifying the detailed procedures to operate the landfill gas system, including the extraction system, the pre-treatment system, and the enclosed flare, in compliance with the requirements of Appendix A of this Order pending completion of the final cap including, without limitation, procedures for balancing the landfill gas extraction system, operating the enclosed flare (including a copy of the flare's operating manual), operating the pre-treatment system, and operating the temporary header, including the control and removal of condensate and elimination, to the extent feasible, of ambient air infiltration into the temporary header and pre-treatment systems. MassDEP has reviewed the *Crow Lane Landfill, Landfill Gas Control Interim Operating Plan* ("Interim LFG Operation Plan") submitted by New Ventures and, for the reasons outlined in the April 2, 2007 memorandum from Shaw Environmental, Inc., attached hereto as Exhibit 1, the Interim LFG Operation Plan does not fulfill the requirements of paragraph 1(d)(ii) of the Order. Among other problems the plan fails to provide detailed instructions for the balancing of the system; trouble shooting procedures for the identification and repair of the systems components such as damaged or blocked wells; or detailed procedures for the operation of the pre-treatment system such as changing and/or replenishing the treatment media or for controlling and eliminating ambient air infiltration into the pre-treatment system.
- c. Paragraph 1(d)(iii) of the Order requires that New Ventures complete the installation of the permanent connection of the pre-treatment system and enclosed flare to the permanent landfill gas header in accordance with the MassDEP approved design plan by the latter of April 1, 2007, or fourteen (14) days from the date of the MassDEP's approval of the design plan. On March 23, 2007, the MassDEP approved the design plan for the permanent connection of the pre-treatment system and enclosed flare to the permanent landfill gas header. New Ventures received the MassDEP's approval on March 26, 2007. As of April 11, 2007, New Ventures has not begun or completed the permanent connection of the pre-

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treatment system and enclosed flare to the permanent landfill gas system in accordance with the MassDEP approved design plan.

3. Paragraph 1(j) of the Order requires New Ventures completely cover with impervious tarps all uncapped areas of the Site containing construction and demolition waste fines and residual materials ("C&D Material"), with the exception of areas that in the past twenty four (24) hours have undergone filling, grading, shaping, or Geocomposite gas collection system installation activity, which areas shall be completely covered at all times when no work on that area is in progress, using removable, impervious tarps or poly sheeting at least 11 millimeters thick. The required tarps must be placed in accordance with the performance standards and "tarp and poly sheet placement protocol" attached to the Order as "Appendix B." New Ventures shall examine the areas currently tarped and repair or replace tarps or portions of tarps that are damaged or which do not provide an impervious barrier. As recently as April 11, 2007, representatives of MassDEP have inspected the site and observed exposed C&D material that is not covered by tarps including, without limitation, the following areas:
  - a. On the slope of the landfill to the north of the haul road where the tarps have been blown off or been damaged and/or removed; and
  - b. On the south slope of the landfill along Crow Lane in the area previously covered by tarps which have blown off or been damaged and/or removed.

In addition, on December 28, 2006 representatives of the MassDEP and the Office of the Attorney General met with you and your client, Mr. William Thibeault, to discuss New Ventures' compliance with the Order and other issues not covered directly by the Order. As a result of these discussions, the MassDEP, by email correspondence on January 3, 2007, provided New Ventures with a list of actions that must be performed at the Crow Lane Landfill to control the landfill gas emissions, releases of leachate from the site to abutting surface water and wetlands, and to control blowing litter from the site including areas where active filling was occurring. These actions included the placement of tarps, six (6) inches of soil, or a spray on coating approved by the MassDEP.

Since January 3, 2007 including, without limitation, March 23, 26, 28 and 30 and April 2, 5, and 11, 2007, representatives of MassDEP have observed excessive wind blown litter which was blowing or had blown onto abutting properties and adjoining areas of Crow Lane in noncompliance with section 310 CMR 19.017 of the Solid Waste Management Regulations. As a result, on April 12, 2007, the MassDEP issued a Unilateral Administrative Order, File No. UAO-NE-07-4003, requiring New Ventures to implement measures to control the blowing litter at and from the Site and to comply immediately with 310 CMR 19.130(17).

4. Paragraph 1(p) of the Order requires New Ventures to submit for MassDEP's approval a geotechnical evaluation of the landfill's perimeter berm and, within 7 days of receipt from the MassDEP of notice of any deficiencies in the evaluation, submit for MassDEP's approval a response that addresses the deficiencies and any other concerns raised by MassDEP. By letter dated March 7, 2007, attached hereto as Exhibit 2, MassDEP notified New Ventures of deficiencies in the geotechnical evaluation it had submitted. On March 29, 2007, the MassDEP received correspondence from you stating that New Ventures would "endeavor to respond to [MassDEP] within the next ten (10) days as to the information available and timetable to address the [deficiencies identified by MassDEP.]" This

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response was not timely and does not satisfy the requirements of paragraph 1(p) of the Order. Furthermore, we have not received the response promised by New Ventures' March 29, 2007 letter.

5. Paragraph 1(q) of the Order requires New Ventures to submit to the MassDEP within five (5) days of the date of execution of the Order (October 20, 2006) a true and complete copy of an executed contract for the installation of the Flexible Membrane Liner (FML) and the Geocomposite gas vent layer ("Geocomposite") with a schedule of deliverables by an FML subcontractor. On October 25, 2006, New Ventures submitted documentation to MassDEP of a contract with New England Liner Systems, Inc. ("N.E. Liner") of Bristol, Connecticut for the installation of the FML and Geocomposite at the landfill. The contract provided that N.E. Liner would complete installation of the FML and Geocomposite in the Phase I and II Areas of the landfill in November 2006 and on the balance of the landfill from April through September 2007. On or about November 22, 2006, N.E. Liner commenced installation of the FML and Geocomposite in the Phase I Area of the landfill.

On December 19, 2006, New Ventures notified the MassDEP that, on or about December 18, 2006, N.E. Liner had breached its contract with New Ventures, abandoned the Site, and ceased placement of the FML and Geocomposite, and that New Ventures therefore would be contracting with another installer to complete installation of the FML and Geocomposite. New Ventures subsequently contracted with Chenango Contracting, Inc. ("Chenango") of Johnson City, New York to install FML and Geocomposite, but only in the Phase I and II Areas of the landfill. Chenango has completed installation in the Phase I and II areas and demobilized. As of the date of this Notice, New Ventures has not provided the MassDEP with a true and complete executed contract with a contractor to complete the installation of the FML and Geocomposite on the remainder of the landfill, in violation of the requirements of paragraph 1(q) of the Order.

6. Paragraph 1(r) of the Order requires New Ventures to complete installation of the FML and the Geocomposite gas collection system for the entire Phase I and Phase II Areas designated on Exhibit 2 of the Order by January 3, 2007 in accordance with the Phase I and II Gas Vent Design Plan. This includes the installation, connection, and operation of the Geocomposite gas vent layer and the associated landfill gas header components. Based upon recent inspections of the landfill, MassDEP has confirmed that a portion of the above ground header of the Geocomposite gas vent system on the western side of the landfill is broken, and that New Ventures has capped the broken piping and not repaired the system. As a result, a portion of the gas vent trenches on the west side of the landfill and the related portions of the Geocomposite gas vent layer are not currently connected to the landfill gas header system. In addition, two tears to the FML on the northeast corner and north side of the Phase I Area have not been repaired exposing the Geocomposite gas vent layer. The orifice plates shown in Detail 2 of Sheet 2 of Exhibit 2 to the Order have not been installed. Because of the above, the Geocomposite Gas vent system is not operational. Therefore, New Ventures is not in compliance with paragraph 1(r).
7. Paragraph 1(u) of the Order requires New Ventures to immediately institute measures to control and manage leachate contaminated standing surface water in the temporary and partially constructed on-Site basins and the wetlands. Over the past few months, MassDEP representatives have repeatedly observed the release of leachate from the landfill including the presence of black and odiferous leachate in the wetland located to the east of the landfill. On March 23, 2007, a representative of the MassDEP detected a strong odor in the area of a standing pool of black leachate in the wetland to the east of the landfill. The Jerome Meter recorded 1.4 parts per million hydrogen sulfide (H<sub>2</sub>S) in the

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air within approximately 3 inches of the surface of the leachate and 22 parts per billion H<sub>2</sub>S within 5 feet of the surface of the leachate. Again, on March 28, 2007 a representative of MassDEP observed a standing pool of black leachate in the wetland to the east of the landfill detected odors and measured concentrations of H<sub>2</sub>S in the ambient air of 15 part per million at 2 feet above the leachate surface and of 24 parts per billion at 5 feet from the surface of the leachate. In addition, at the base of the perimeter berm observed a clear odiferous leachate and measured H<sub>2</sub>S concentrations of 2.5 part per million and 108 parts per billion at 2 feet and 5 feet, respectively above the surface of the leachate. On April 11, 2007, during an inspection of the Site MassDEP representatives observed that black odiferous leachate is still present in the wetland to the east of the landfill. In addition, MassDEP representatives continue to confirm that New Ventures is not removing leachate from the leachate collection tanks. Leachate is continuing to be released to the surface water at the southwest corner of the landfill and the temporary storm water basin located at the base of the haul road (Basin 1B). On April 11, 2007, MassDEP representatives also observed employees of New Ventures draining leachate (condensate) from the temporary flexible piping that connects the pretreatment system and enclosed flare and allowing the condensate to discharge to Basin 1B.

8. Paragraph 1(w) of the Order requires New Ventures (i) by February 26, 2007, complete excavation of Basin 2 in accordance with the amended revised corrective action design plans received by the Department from New Ventures' consultant on January 5, 2007, and January 19, 2007 (transmittal No. W046210); (ii) by March 16, 2007, complete installation of temporary erosion controls in accordance with the requirements and specifications in the "Temporary Erosion Control Measures for Phase I and II Areas" plan for the management and control of storm water runoff from the capped Phase I and II areas of the landfill, attached to this Order as "Appendix F"; (iii) by March 23, 2007, complete construction and connection of the level spreaders, discharge pipes, and all other components of Basin 2 in accordance with the amended revised corrective action design plans received by the Department from New Ventures' consultant on January 5, 2007, and January 19, 2007 (transmittal No. W046210), and; (iv) within 45 days of the Department's approval of the amended revised corrective action design plan, construct all portions of berm storm water controls related to Basin 2, including the western and northern berm. SITEC Environmental, Inc.'s, New Venture's consultant, inspection reports for March 30, and April 4, 2007, attached hereto as Exhibits 2 and 3, indicate that: the Basin 2 has been substantially completed; that the related outlet structures have been installed; that hay bales have been installed at the top of the berm around the perimeter of the Phase I and Phase II Areas and some required adjustment and repositioning; and that the grading of the low spots and placement of crushed stone on the top of the northern and western berm was occurring in order to direct storm water flow from the capped Phase I and II Areas to Basin 2 and the temporary let-down channels.

During recent inspections of the Site, including, without limitation, on April 11, 2007, MassDEP representatives have observed that while Basin 2 has been excavated and outlet structures have been installed the construction of Basin 2 has not been completed in accordance with the January 5 and 19, 2007 design plans including, without limitation, installation of: the energy dissipaters on the outlet structures, the level spreader/apron on the outlet to the eastern wetland, and the crushed stone filtration berm within the basin before the outlet pipe to the eastern wetland. In addition, a pile of soil excavated during the construction of the basin was observed adjacent to the stone apron at the outlet pipe to the northern wetland. Soil is eroding from this pile into the stone apron and wetland.

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In addition, while New Ventures has placed and graded crushed stone on the top of the berm, New Ventures did not sufficiently grade the top of the berm prior to placement of the crushed stone to remove the existing low spots. As a result storm water runoff from the capped Phase I and Phase II Area continues to discharge to and run down the side slope of the berm at low spots in the berm rather than via the let-down channels and into Basin 2 as required by Appendix F to the Order. Therefore, New Ventures has not completed construction of all of the required temporary erosion controls in accordance with paragraph 1(w)(ii) of the Order and of Basin 2 in accordance with paragraph 1(w)(iii).

9. Paragraph 12 of the Order provides the MassDEP and its contractors shall have the right to access the Site at any time and without notice to: respond to odor complaints; conduct inspections; take air quality readings, leachate samples, or other samples; secure the continued installation and full operation of the temporary LFG pre-treatment system or permanent LFG pre-treatment system in the event that either the temporary or permanent LFG pre-treatment system has been removed, disabled, or otherwise fails, or if New Ventures has abandoned or stopped operating the LFG pre-treatment system; secure the continued installation and full operation of the existing open flare or the enclosed flare, or, in the event that either the existing open flare or the enclosed flare has been removed or disabled or New Ventures has abandoned or stopped operating the existing open flare or the enclosed flare, secure installation and full operation of a replacement enclosed flare, as well as all piping, gas collection systems, propane tanks, and other components required to operate the existing open flare or enclosed flare; and otherwise inspect the Site or monitor activity to ensure compliance with all terms, conditions, and requirements of this Order, as well as with any other applicable administrative enforcement orders issued by the MassDEP. New Ventures personnel have repeatedly and continue to refuse to provide the MassDEP's consultant, Shaw Environmental, Inc. ("Shaw") of Salem, New Hampshire, during inspections of the site with access to records at the site including, without limitation the Collection System Monitoring Forms required by Appendix A of the Order and records on the management of leachate at the site including documents on the inspection and pumping of the leachate collection tanks and the off-site disposal of the leachate. The Office of the Attorney General has informed you of this situation on a number of occasions and representatives of MassDEP have also informed New Ventures personnel during inspections of New Ventures' obligation to provide this information to MassDEP and their contractor.

For all of the above stated reasons, New Ventures is not in compliance with the Order. In accordance with paragraph 9 of the Order, New Ventures shall not accept or place as grading or shaping material at the landfill any Construction and Demolition Material ("C&D Material") until MassDEP determines, in writing, that New Ventures has returned to full compliance with all terms, conditions, and requirements of the Order.

If you have any questions please contact me at (978) 694-3299.

Sincerely,

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John A. Carrigan, Chief  
Solid Waste Management Section

Certified Mail Number: 7005 1820 0007 7732 1909

JAC/jac

Exhibit

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Matthew Ireland  
Office of the Attorney General  
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City Council  
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Michael Dingle  
MassDEP/OGC-Boston

**Exhibit 1**

**Shaw Environmental, Inc.**

**Memorandum**

**Interim Operation Plan**

**April 2, 2007**



Shaw Environmental, Inc  
11 Northeastern Boulevard  
Salem, NH 03079-1953  
603.870.4500  
FAX: 603.870.4501

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April 12, 2007  
Project 124246

John, A. Carrigan, Chief  
Solid Waste Management Section  
Massachusetts Department of Environmental Protection, NERO  
205B Lowell Street  
Wilmington, MA 01887

Re: Crow Lane Landfill, Newburyport, Massachusetts  
Landfill Gas Control Interim Operating Plan

Dear Mr. Carrigan:

Shaw Environmental Inc. has reviewed the Crow Lane Landfill; Landfill Gas Control Interim Operating Plan and finds it does not meet several conditions for an Interim Operation Plan submittal as identified in the Preliminary Injunction (PI). The italicized headings are the Plan requirements as stated in the PI:

*1. Procedures for balancing the landfill gas extraction system,*

A detailed gas collection system operating manual was not provided. Without providing an exact description of the procedures and parameters to be used to balancing the landfill gas wellfield, there is no assurance that odorous gas releases from the landfill will be prevented. There is no means to determine if a gas collection pipe is malfunctioning because it is broken, or filled with condensate water which blocks gas flow. The same applies to each well, each horizontal collector pipe, and condensate trap. If operating personnel change, instructions must be available to the new operator to assure the system functions according to its design and in a manner that controls odor releases.

The SITEC plan simply refers to Appendix A of the PI for well field tuning guidelines. The guidelines contained in Appendix A were established as general performance standards for the purposes of operating and monitoring the landfill gas collection treatment facility. The procedures for balancing the landfill gas extraction system should be site specific and should have been supplied in this plan. That would include balancing techniques, and documentation materials such as well balancing log forms which indicate that the field has been adjusted appropriately. A gas management site plan showing locations of wells, horizontal collectors, header pipes, valves, condensate drains, other appurtenances and monitoring points is necessary. A monitoring location labeling system and all reporting forms should have been provided. Daily routines and trouble shooting procedures should be provided for the identification and repairing of damaged or blocked wells and piping systems.

Language such as “It is recommended” should be eliminated. If something needs to be done, then make it mandatory. The opportunity always exists to modify the Plan to meet changing operating conditions.

*2. Procedures for operating the enclosed flare (including a copy of the flare’s operating manual),*

A detailed flare Operating Instructions Manual was not provided. Without providing an exact description of the procedures and parameters to be used to operate the flare, there is a likelihood that it won’t function as designed, and one or more components may become damaged. Without correct operations, increased wear and tear will reduce system life. The flare is a critical final gas polishing step. If the flare is not functioning correctly, it will either release significant odors or greenhouse gases. If the flare is operated outside of the optimal combustion temperature range, there will be increased nitrogen, sulfur, and chloride emissions which are acid forming compounds and are significant human health irritant. If operating personnel change, instructions must be available to the new operator to assure the flare functions according to its design and in a manner that controls pollutant releases.

The flare Operating Instructions provided should have significantly more detail. For example:

Safety Instructions:

The manual should not just reference the National Electrical Code or the National Fuel Code as operating standards; the manual should copy those sections that are relevant to the operations of the flare.

The Operating Procedures:

A detailed schematic should be provided that shows all components of the flare system, such as switches, valves, flame arrestors, etc. so that the operating procedures can be followed on paper and components can be identified on the equipment.

Component Specifications:

Every piece of equipment associated with the flare should have the manufactures' cut sheet specifications and trouble shooting directions.

System Shut-down

System shut down requirements should be stated to assure there are no potential explosive hazards and to assure proper system startup.

3. *Procedures for operating the pretreatment system, and operating the temporary header, including the control and removal of condensate and elimination, to the extent feasible, of ambient air infiltration into the temporary header and pretreatment systems.*

None of the information described above was provided. No methods for measuring H<sub>2</sub>S removal were provided, nor were any record keeping methods or recording forms provided. Simply referring to Appendix A of the PI is not appropriate; especially if there have been changes to the system. While the requirements of Appendix A must be met, procedures and other information belong in this manual in a clearly defined and logical manner. A fully diagramed schematic of the pretreatment system, a parts list and specifications, media specification, operations procedure, monitoring program, and trouble shooting methods must be provided.

Should you have any question regarding this information, please do not hesitate to contact us.

Sincerely,

Shaw Environmental, Inc.

Benjamin Siebecker, PE

Ed VanDoren, PE, LSP

Senior Engineer

Project Manager

## **Exhibit 2**

**SITEC Environmental, Inc.**

**Inspection Report**

**March 30, 2007**

**Exhibit 3**

**SITEC Environmental, Inc.**

**Inspection Report**

**April 4, 2007**